

Date: Mon, 4 Oct 93 04:30:23 PDT  
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>  
Errors-To: Ham-Space-Errors@UCSD.Edu  
Reply-To: Ham-Space@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Space Digest V93 #45  
To: Ham-Space

Ham-Space Digest                      Mon, 4 Oct 93                      Volume 93 : Issue    45

Today's Topics:

                    Help with A0-21, please...  
                    SETI: Public Lecture (final announ.)  
                    Two-Line Orbital Element Set Format

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>  
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.  
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Date: Sun, 3 Oct 1993 07:41:58 GMT  
From: sdd.hp.com!cs.utexas.edu!usc!howland.reston.ans.net!usenet.ins.cwru.edu!  
nshore!fmsysm!andrews@network.ucsd.edu  
Subject: Help with A0-21, please...  
To: ham-space@ucsd.edu

Hello, I need the latest Kep's for A0-21, I can hear it loud and  
clear whenever it makes a pass, I'm trying to build a 50-100w xmitter  
for the uplink freq for mobile use.

Could some body please send me the Kep's so I can figure out when the  
bird is going to come over (no, I don't have a tracking program)?

-or-

Send me a printout of A0-21 for Cleveland for the next 30 days?

Thanks much...

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Tell Me Something I Don't Know,                      ! HAM        =        N80FS  
Show Me Something I Can Use,                      ! ARMY MARS = AAN5HJT

Push The Buttons, ! CB = THE NEON KNIGHT  
Connect The God-Damn Dots!!! - Ministry ! HACKER = TH3 N30N KN1GHt

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Date: 4 Oct 1993 01:38:03 GMT  
From: munnari.oz.au!goanna.cs.rmit.oz.au!aggedor.rmit.OZ.AU!icarus.edc.rmit.oz.au!  
user@uunet.uu.net  
Subject: SETI: Public Lecture (final announ.)  
To: ham-space@ucsd.edu

Don't forget to come along to the SETI talk this THURSDAY!!!  
Bring your friends - tickets at door i.e. no bookings

Below is a brief resume of the guest speaker

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Is there anyone out there?

The Search For Extraterrestrial Intelligence

A PUBLIC LECTURE  
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Dr. Guillermo Lemarchand  
(Argentine Institute for Radio Astronomy)

- Physicist at the University of Buenos Aires
- Organizer of the First Latin-American Meeting on Intelligent Life in the Universe (1985)
- Member of the SETI Research group at the Argentine Institute for Radioastronomy since 1986.
- Researcher at the Center for Advanced Studies of the University of Buenos Aires
- Visiting Fellow at the Center of Radiophysics and Space Research of Cornell University, under supervision of Carl Sagan (1992)
- Editor of BIOASTRONOMY NEWS, newsletter of the International Astronomical Union Commission 51 (Bioastronomy), published by The Planetary Society.

8 p.m.  
Thursday, October 7  
Glasshouse Theatre, RMIT  
360 Swanston Street, Melbourne

Admission: \$3 (tickets at door - no bookings available)

Organised by the Space Association of Australia, Inc.

USUAL DISCLAIMER: This event is not sponsored by either RMIT  
or the Centre for Design at  
RMIT

+-----+  
Michael Abdilla - Information Services Manager

Centre for Design at RMIT

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Date: Fri, 1 Oct 1993 18:47:49 MDT  
From: saimiri.primate.wisc.edu!caen!destroyer!nntp.cs.ubc.ca!alberta!nebulus!  
adec23!ve6mgs!usenet@ames.arpa  
Subject: Two-Line Orbital Element Set Format  
To: ham-space@ucsd.edu

As a service to the satellite user community, the following description of the NORAD two-line orbital element set format is uploaded to sci.space.news and rec.radio.info on a monthly basis. The most current orbital elements from the NORAD two-line element sets are carried on the Celestial BBS, (513) 427-0674, and are updated daily (when possible). Documentation and tracking software are also available on this system. The Celestial BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using 8 data bits, 1 stop bit, no parity. In addition, element sets (also updated daily) and some documentation and software are also available via anonymous ftp from archive.afit.af.mil (129.92.1.66) in the directory pub/space.

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Data for each satellite consists of three lines in the following format:

AAAAAAAAAAAA

1 NNNNNU NNNNNAAA NNNNN.NNNNNNNNN +.NNNNNNNNN +NNNNN-N +NNNNN-N N NNNNN  
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNNNN

Line 0 is a eleven-character name.

Lines 1 and 2 are the standard Two-Line Orbital Element Set Format identical to that used by NORAD and NASA. The format description is:

Line 1

Column	Description
01-01	Line Number of Element Data
03-07	Satellite Number
10-11	International Designator (Last two digits of launch year)
12-14	International Designator (Launch number of the year)
15-17	International Designator (Piece of launch)
19-20	Epoch Year (Last two digits of year)
21-32	Epoch (Julian Day and fractional portion of the day)
34-43	First Time Derivative of the Mean Motion or Ballistic Coefficient (Depending on ephemeris type)
45-52	Second Time Derivative of Mean Motion (decimal point assumed; blank if N/A)
54-61	BSTAR drag term if GP4 general perturbation theory was used. Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63	Ephemeris type
65-68	Element number
69-69	Check Sum (Modulo 10) (Letters, blanks, periods, plus signs = 0; minus signs = 1)

Line 2

Column	Description
01-01	Line Number of Element Data
03-07	Satellite Number
09-16	Inclination [Degrees]
18-25	Right Ascension of the Ascending Node [Degrees]
27-33	Eccentricity (decimal point assumed)
35-42	Argument of Perigee [Degrees]
44-51	Mean Anomaly [Degrees]
53-63	Mean Motion [Revs per day]
64-68	Revolution number at epoch [Revs]
69-69	Check Sum (Modulo 10)

All other columns are blank or fixed.

Example:

NOAA 6

1	11416U		86	50.28438588	0.00000140		67960-4	0	5293
2	11416	98.5105	69.3305	0012788	63.2828	296.9658	14.24899292346978		

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End of Ham-Space Digest V93 #45

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